

DETAILED ACTION

Specification

1. Amendment to the title, filed 27 January 2009, is acknowledged and accepted.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas E. McKiernan (Reg. No. 37,889) on 11 March 2009.

The application has been amended as follows:

Claim 1. (Currently Amended) A picture inputting apparatus comprising:
a solid state image pickup device having a high-resolution pixel array consisting of a plurality of photo-receptive elements disposed at a high density for converting a formed image into a pixel value of an electric signal by photoelectric conversion;
a low-resolution whole picture scanning unit which outputs low-resolution whole picture data by reading out and scanning the wholeness of an imaging range with the pixel array resolution lowered;

a high-resolution partial picture scanning unit which outputs high-resolution partial picture data by partially reading out and scanning the imaging range with the pixel array high-resolution kept;

a switching unit which provides a switching between the low-resolution whole picture scanning unit and the high-resolution partial picture scanning unit within a predetermined frame period of picture signals to thereby output in sequence the low-resolution whole picture data and the high-resolution partial image data at a speed equal to or greater than the video rate; and

an image processing unit which automatically determines the extracting position of the high-resolution partial picture at the next frame, based on the low-resolution whole picture data output from the low-resolution whole picture scanning unit, to thereby instruct the high-resolution partial picture scanning unit on the extracting position; and

a picture transmission unit which converts into analog picture signals low-resolution whole picture data output from the low-resolution whole picture scanning unit and high-resolution partial picture data output from the high-resolution partial picture scanning unit, to transmit the obtained analog picture signals to an external image processor via a transmission path, wherein

the picture transmission unit converts the low-resolution whole picture data and the high- resolution partial picture data into analog picture signals, respectively, for parallel transmission along parallel paths.

Claim 12. (Cancelled)

Allowable Subject Matter

3. Claims 1-10 are allowed.
4. The following is an examiner's statement of reasons for allowance: As seen in Figure 1 and claim 1, Applicant's claimed invention is directed to an image pickup device having a switching unit for switching between a low-resolution whole image and a high resolution partial image (often also referred to as a "region of interest", "ROI" or "area of interest"), which can be outputted at a speed equal to or greater than the video rate (often also referred to as the "frame rate"). The high resolution partial image is automatically determined and extracted from the low-resolution image data. Further, high-resolution and low-resolution images are output to an external image processor in a parallel fashion. The combination of the outputting the images at a speed equal to or greater than the video rate, automatic determination and extraction of high-resolution partial images, and parallel output was not found in a prior art search, and therefore makes Applicant's claimed invention in condition for allowance.
5. The most recent prior art search yielded the following related references that the Examiner wants to put in the record:

US Patent No. 6,130,170 A issued to Yasuda; and

US Patent No. 4,888,795 A issued to Ando et al.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD M. BEMBEN whose telephone number is (571)272-7634. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David L. Ometz/
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